

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

CONDITIONAL MAJOR DRAFT PERMIT F-01-034
KENTUCKY DEPARTMENT OF MILITARY AFFAIRS
KENTUCKY ARMY NATIONAL GUARD
FORT KNOX, KENTUCKY
JANUARY 2, 2002
STEPHANIE RHODES, REVIEWER
PLANT I.D. #21-093-00087
APPLICATION LOG #54110

SOURCE DESCRIPTION:

The Kentucky Department of Military Affairs/Kentucky Army National Guard, located at KYMATES in Fort Knox, Kentucky, has submitted an application for the construction of a **blast booth** and a **paint booth**. The Kentucky Army National Guard will be painting the M-1 Abrams Tank.

EMISSION POINTS :

The **blast booth**, emission point 01, will utilize a high-pressure water blast system to physically strip paint from military vehicles to be painted. Residual water will be processed through a centrifuge to separate paint debris from the water. Paint debris and other solids will be drummed for proper disposal. No chemical stripping methods will be used at this facility.

The **paint booth**, emission point 02, will be used to paint military vehicles. A spray gun will be used to manually apply water-reducible polyurethane paint and a paper filter bank will be used to control particulates. The coatings to be employed are the 383 green topcoat and a high solids epoxy primer; additionally, a water and solvent-based thinner will be used for clean up. The primer will produce the highest emission rate of VOC's and HAPs, while the topcoat will produce the highest emission rate of particulates.

EMISSION AND OPERATING CAPS :

The National Guard has requested that a cap be placed on their actual VOC emissions so that the company can be considered a conditional major. VOC emissions shall not exceed 50 tons during any consecutive twelve (12) month period. In order to meet this requirement, the hours of operation shall be limited to 3,120 hours per year and/or the throughput of the topcoat and the epoxy primer must be limited. Monthly records to demonstrate compliance with this limitation shall be maintained, and total VOC emissions shall be reported on a quarterly basis.

APPLICABLE REGULATION:

401 KAR 59:010, New Process Operations, applies to particulate matter emissions from the paint booth, emission point 02.

Particulate emissions from this point are limited to 2.34 lb/year. A compliance demonstration is not necessary when the accordion-style paper filter is in operation. However, if the paint booth is in operation during any time of malfunction of the fabric filter, the emission rate shall be calculated using the following formula:

Emission Rate = Processing Rate (gallons/hour) x 6.05 lb solid/gallon x % Overspray

Monthly records to demonstrate compliance with this limitation shall be maintained and total particulate emissions shall be reported on a quarterly basis.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.